

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.

09/889,053

Applicant(s)

Thomas Woods Keough, et al.

Filed

12 January 2000

Title

Methods and Kits for Sequencing Polypeptides

TC/A.U.

Not Yet Assigned

Examiner

Not Yet Assigned

Conf. No.

6283

Docket No. Customer No. 7379M

27752

APR 2 1 2004 OFFICE OF PETITIONS

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Mail Stop PCT

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

INTRODUCTORY REMARKS

In response to the Notification of Defective Response mailed on March 20, 2003, please consider the following remarks.

The Applicants further submit herewith a Petition to Revive the present application as Unintentionally Abandoned as the Applicants did not file a response to the Notification of Defective Response by the extended date of September 20, 2003.

Remarks begin on page 2 of this paper.

Page 1 of 3

REMARKS

Claims 1 to 10 are pending in the present application. No additional claims fee is believed to be due.

The Applicants have amended the Sequence Listing of the present application to overcome the purported deficiencies described in the Notification of Defective Response (hereinafter referred to as "Notification") mailed to the Applicants on March 20, 2003. Specifically, the Notification states that the Applicants use of the 3-letter abbreviation "Xaa" in Sequence ID No. 4. necessitates the Applicants' provision of information for entries 220 to 223. Rather than provide responses to entries 220 to 223, the Applicants have removed the "Xaa" abbreviation, and have replaced it with the three-letter abbreviation for cysteic acid, "Cya." The Applicants have inserted the three-letter code "Cya" in place of "Xaa" in positions 7 and 19 of Sequence ID NO. 4. Support for the Applicants' inclusion of the three-letter code "Cya" is found on page 19 of the present specification under the heading "Example 13." This section of the present application states, in pertinent part,

PSD MALDI tandem mass spectrometry of high-mass polypeptides is demonstrated with oxidized insulin B-chain FVNQHLC(SO₃H)GSHLVEALYLVC(SO₃H)GERGFFYTPKA (SEQ ID NO: 4) (MMcalc = 3495.9 Da) (commercially available from Sigma Chemical Co., St. Louis, MO). See Page 19; Example 13.

The Applicants submit that the amino acid sequence of Sequence ID NO: 4, which is commercially available from Sigma Chemical, contains cysteic acid at positions 7 and 19. The Applicants submit that the 3-letter abbreviation for cysteic acid is "Cya." Support for the Applicants position may be found at the following Internet web address: http://www.chem.qmul.ac.uk/iupac/AminoAcid/AAap.html, under the heading "Nomenclature and Symbolism for Amino Acids and Peptides."

The Applicants submit herewith an amended sequence listing in paper copy and computer readable form, both of which reflect the above change with respect to "Xaa" in positions 7 and 19 of Sequence ID NO: 4. The Applicants respectfully request entry of this sequence into the present application. The Applicants further submit herewith a Statement Under 37 CFR 1.82, asserting that the content of the paper and computer readable copies of the Sequence Listing are the same.

It is believed these changes do not involve any introduction of new matter. Consequently, entry of these changes is believed to be in order and is respectfully requested.

Conclusion

In light of the above remarks, it is requested that the enclosed Sequence Listing be entered and that the present application be substantively examined. Early and favorable action in the case is respectfully requested.

Applicants have made an earnest effort to place their application in proper form substantive examination. In view of the foregoing, Applicants respectfully request acceptance of the present application and examination on the merits.

Respectfully submitted,

Thomas Woods Keough, et al.

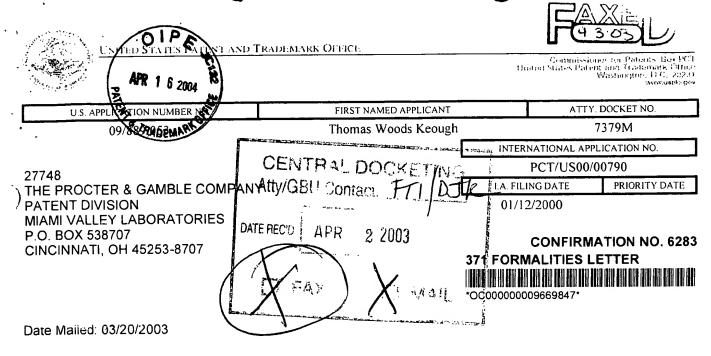
Frank Taff

Attorney for Applicants Registration No. 52,270

(513) 634-9315

14-APRIL, 2004

Response to "Notification of Defective Response" mailed on 03/20/2003



NOTIFICATION OF DEFECTIVE RESPONSE

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as an Elected Office (37 CFR 1.495):

- U.S. Basic National Fee
- Biochemical Sequence Diskette
- · Biochemical Sequence Listing
- Copy of IPE Report
- Copy of references cited in ISR
- Copy of the International Application
- Copy of the International Search Report
- Information Disclosure Statements
- Oath or Declaration
- Preliminary Amendments

Applicant's response filed 03/13/2003 is hereby acknowledged. The following requirements set forth in the NOTIFICATION of MISSING REQUIREMENTS mailed 03/19/2002 have not been completed.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR 1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).

The following items **MUST** be furnished within the period set forth below:

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- The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):
 - RAWSEQUENCE LISTING ERROR REPORT
 - APPLICANT MUST PROVIDE:
 - An initial or substitute computer readable form (CRF) of the "Sequence Listing."
 - An initial or substitute paper copy or compact disc of the "Sequence Listing," as well as an amendment directing its entry into the specification.
- For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:
 - For Rules Interpretation, call (703) 308-4216
 - To Purchase Patentin Software, call (703) 306-2600
 - For Patentin Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

A copy of this notice MUST be returned with the response.

DEBORAH D WILLIAMS

Telephone: (703) 305-3744

PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
09/889,053	PCT/US00/00790	7379M

FORM PCT/DO/EO/916 (371 Formalities Notice)





The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable

Application Serial Number: 09 889 053B	: FECEIVED
Date Processed by STIC: PCT 09 3/13/03	APR 2 1 2004
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APPLICANT, WITH A NOTICE TO COMPLY or, 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS: http://www.uspto.gov/web/offices/pac/checker

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>, EFS Submission User Manual - ePAVE)
- 2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
- U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
- U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
- 4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002



Does Not Comply Corrected Diskette Needed

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/889,053B

DATE: 03/13/2003

A X00 in sequence, fecture required See p. 3

TIME: 14:52:54

Input Set : A:\7379p2.app

Output Set: N:\CRF4\03132003\1889053B.raw

5 <110> APPLICANT: Keough, Thomas W.

Youngquist, Robert S.

11 <120> TITLE OF INVENTION: Methods and Kits for Sequencing Polypeptides

15 <130> FILE REFERENCE: Methods/Kits for Sequencing Polypeptid

C--> 19 <140> CURRENT APPLICATION NUMBER: US/09/889,053B

C--> 21 <141> CURRENT FILING DATE: 2002-07-25

25 <160> NUMBER OF SEQ ID NOS: 9

29 <170> SOFTWARE: PatentIn Ver. 2.0

ERRORED SEQUENCES

93 <210> SEQ ID NO: 4

95 <211> LENGTH: 30

97 <212> TYPE: PRT

99 <213> ORGANISM: bovine insulin

103 <400> SEQUENCE: 4

E--> 105 Phe Val Asn Gln His Leu Xaa Gly Ser His Leu Val Glu Ala Leu Tyr 107 1

5 10

E--> 111 Leu Val Xaa Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Ala 25

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RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/09/889,053B

DATE: 03/13/2003 TIME: 14:52:55

Input Set : A:\7379p2.app

Output Set: N:\CRF4\03132003\1889053B.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

```
Seq#:1; Line(s) 1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41
  \q#:1; Line(s) 43,45,47,49,51,53
\q#:2; Line(s) 55,57,59,61,63,65,67,69,71,73
Seq#:3; Line(s) 75,77,79,81,83,85,87,89,91,93
Seq#:4; Line(s) 95,97,99,101,103,105,107,109,111,113,115,117,119
Seq#:5; Line(s) 121,123,125,127,129,131,133,135,137,139
```

Seq#:6; Line(s) 141,143,145,147,149,151,153,155,157,159 Seq#:7; Line(s) 161,163,165,167,169,171,173,175,177,179

Seq#:8; Line(s) 181,183,185,187,189,191,193,195,197,199 Seq#:9; Line(s) 201,203,205,207,209,211,213,215,217,219,221,223,225,227,229

VARIABLE LOCATION SUMMARY

PATENT APPLICATION: US/09/889,053B

DATE: 03/13/2003 TIME: 14:52:55

Input Set : A:\7379p2.app

Output Set: N:\CRF4\03132003\1889053B.raw

Use of n's or Xaa's (NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing. Use of <220> to <223> is MANDATORY if n's or Xaa's are present.

in <220> to <223> section, please explain location of n or Xaa, and which

Seq#:4; Xaa Pos. 7,19

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/889,053B

DATE: 03/13/2003 TIME: 14:52:55

Input Set : A:\7379p2.app
Output Set: N:\CRF4\03132003\1889053B.raw

L:19 M:270 C: Current Application Number differs, Replaced Current Application Number

L:21 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:105 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:4

M:340 Repeated in SeqNo=4

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